



**PRELIMINARY DELINEATION
FOR 5,800 ACRES IN GOLDEN VALLEY**

Prepared for

Rhodes Homes Arizona, LLC

Prepared by

SWCA Environmental Consultants

July 2005

**PRELIMINARY DELINEATION
FOR 5,800 ACRES IN GOLDEN VALLEY**

Kingman, Mohave County, Arizona

Prepared for:
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SWCA Project No. 9048-166

July 2005

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1.0 INTRODUCTION

The purpose of this document is to describe the methodology used to delineate waters of the U.S. (WUS) in the project area and to present the results of the field delineation. This delineation was prepared in anticipation of submittal of a permit application for an Individual Permit in compliance with Section 404 of the Clean Water Act. It is anticipated that the landowner will develop the subject property for residential and commercial uses, but detailed site planning will be completed after a delineation of WUS is approved by the U.S. Army Corps of Engineers (COE) and the area of COE's jurisdiction is determined. Project impacts to WUS will be calculated for multiple alternatives, once a delineation is approved by the COE, to determine the least environmentally damaging, practicable alternative.

2.0 PROJECT LOCATION

The project area is located in Golden Valley, approximately 10 miles southwest of the city of Kingman (Figure 1). It encompasses approximately 5,800 acres in Sections 2, 3, 4, 8, 9, 10, 11, 16, and part of 14 and 20 of Township 20 North, Range 18 West and part of Section 34 of Township 21 North, Range 18 West, Mohave County, Arizona (Figure 2). It can be accessed from the north from State Highway 68 and Aztec Road and from the east from Interstate 40 and Old Highway 66/Oatman Road. The parcels are owned by Rhodes Homes Arizona, LLC. The land surrounding the project area contains a mixture of privately owned parcels and land managed by the U.S. Bureau of Land Management. The project area and surrounding land contain a low density, rural residential community and relatively undisturbed desert.

The project area occurs in the Mojave creosote bush scrub vegetation community at an elevation of approximately 2,800 feet above mean sea level. Several large washes traverse the project area, including the Sacramento Wash, Battleship Wash, and Halfway Wash. In some areas, these washes become very braided and divide into multiple smaller washes. All of the washes in the project area are ephemeral. Vegetation in and along the washes is sparse and consists mostly of low growing shrubs and herbaceous plants. Typical vegetation in the project area includes creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), Mormon tea (*Ephedra* spp.), burrobush (*Hymenoclea salsola*), various grasses, and some cactus species. Mesquite (*Prosopis* sp.) is present in some of the washes.

3.0 PRELIMINARY DELINEATION

3.1 Methodology

Prior to conducting the field surveys, Geographic Information System (GIS) technicians mapped the project area using 2004 aerial photographs. Field maps were produced at a scale of 1"=400', which required multiple sheets to cover the entire project area. The project area boundary was uploaded into handheld Garmin Geographic Positioning System (GPS) units, which were used to record the sample point locations.

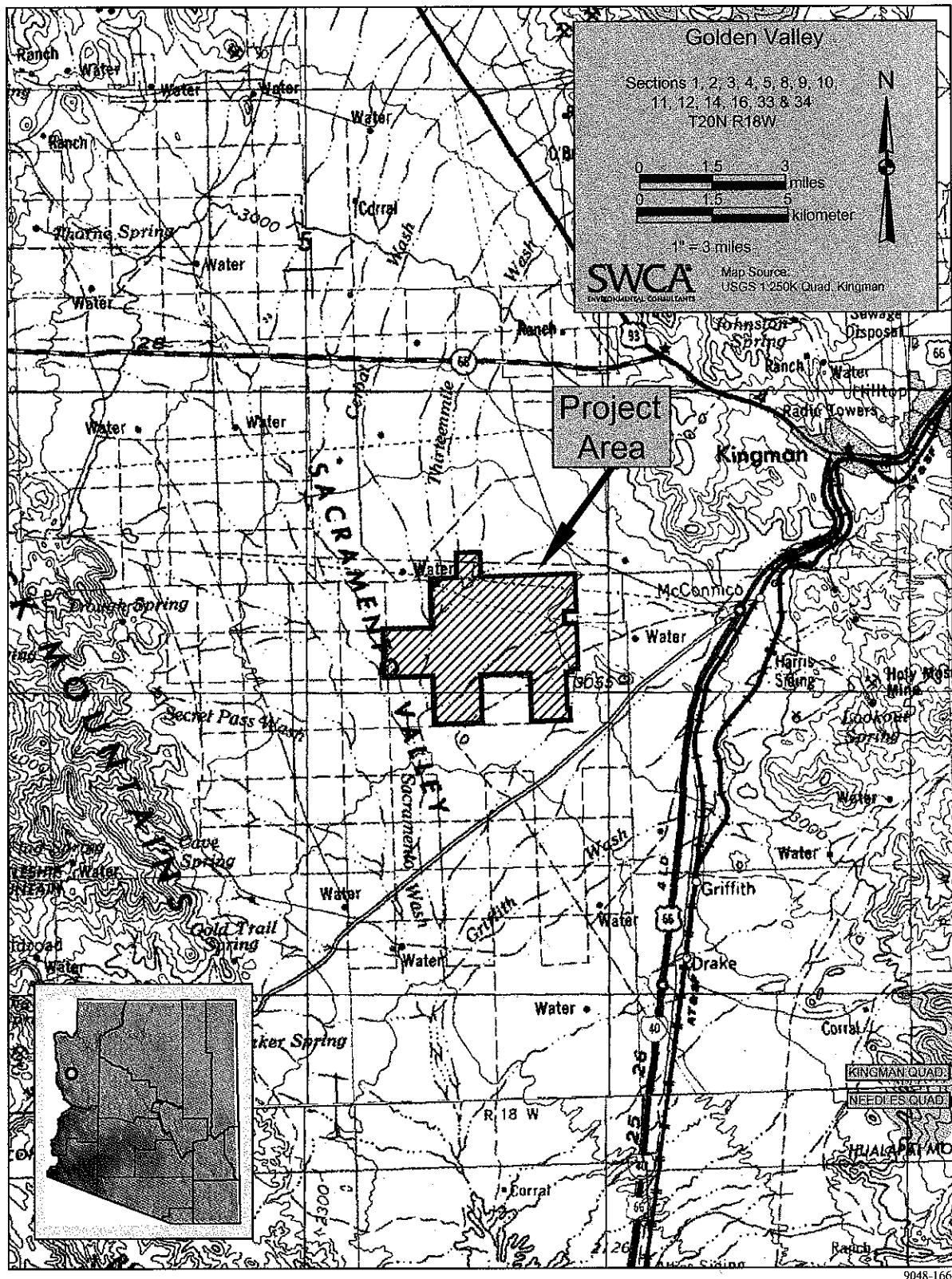


Figure 1. General location of the project area.

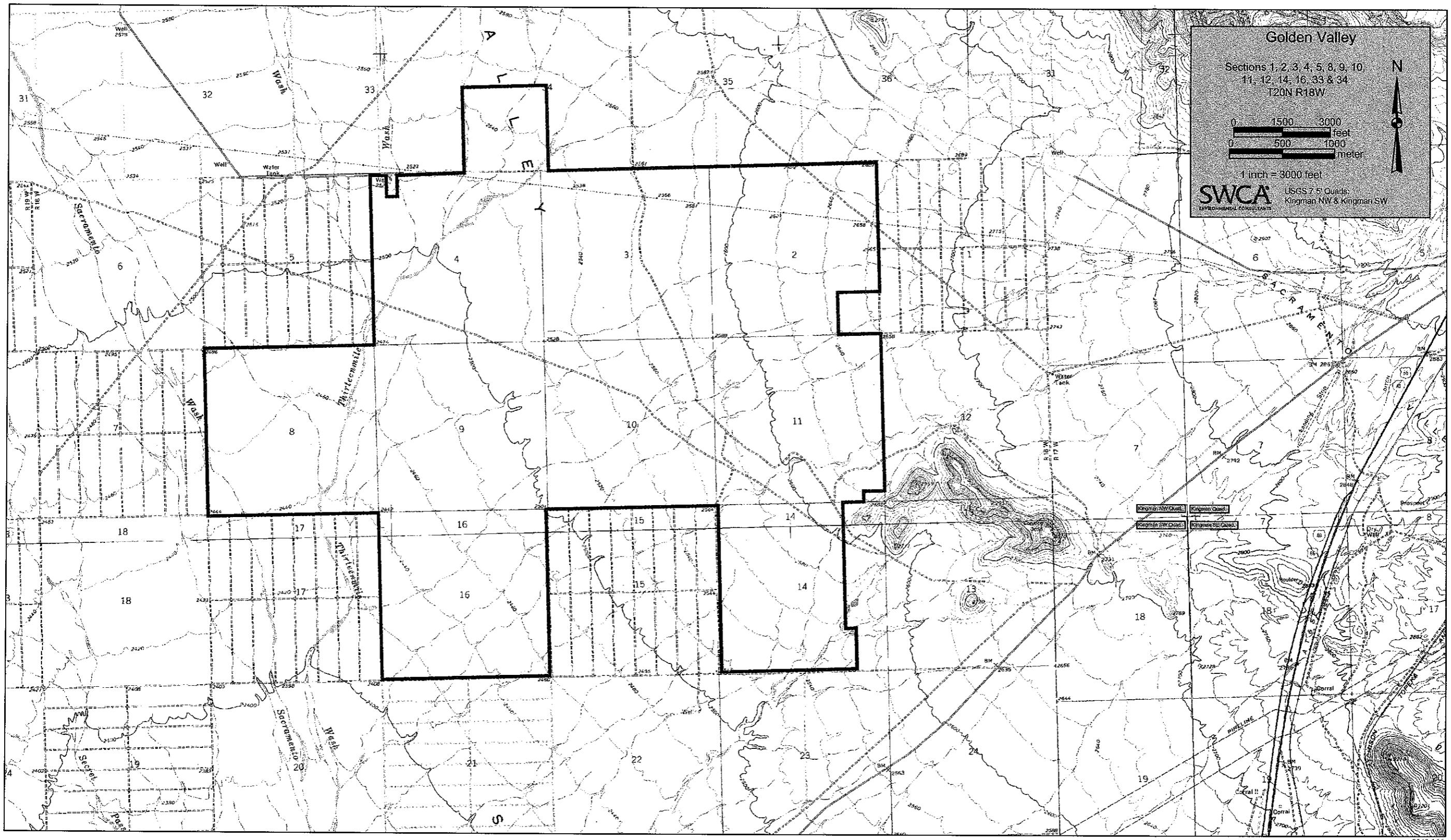


Figure 2. Project area location

Biologists familiar with delineating jurisdictional waters in the arid southwest conducted field surveys on January 6, 7, 12, and 13 and February 8, 2005. The biologists used existing dirt roads to access the project area and conduct pedestrian surveys to locate representative sample points along the washes. The sample points were selected based on the indicators of ordinary high water (OHW); new sample points were identified approximately every 200 meters or where the OHW width substantially changed. Data collected at each sample point were recorded on forms and included the GPS coordinates of the point, OHW width of the wash at the point, presence or absence of riparian vegetation, and other observations relevant to the delineation. Photographs of the washes were also taken at each sample point using a digital camera.

The definition of the OHW mark was applied to each drainage at each sample point to determine if it met the criteria to fall within the jurisdiction of the COE. The OHW mark for non-tidal streams is defined as the "line on the shore established by the fluctuations of water and is indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR Part 328.3). The *Review of Ordinary High Water Mark for Delineating Arid Streams in the Southwestern United States* (Engineer Research and Development Center 2004) and *Guidelines for Jurisdictional Determinations* (COE 2001) were also used as guidance for determining COE jurisdiction of drainages within the project area. Drainages that did not exhibit a distinct OHW width and were overgrown with upland vegetation were not considered a WUS. Drainages that did not connect to another drainage downstream were considered isolated from WUS and were also not considered a WUS.

Following the field surveys, the GPS coordinates of the sample points were uploaded into a GIS database. A graphics technician used a combination of the field data and aerial photo interpretation to draw the ordinary high water limits onto the electronic copy of the aerial photograph. Once the polygons were complete they were quality controlled checked by a field delineator. After the quality control check, Arc View, a GIS program, was used to complete area calculations and then to export the calculations to a text file used to create Table 1 below.

3.2 Results

No wetlands occur within the 5,800-acre study area. Fifty-five drainages totaling approximately 73.2 acres were preliminarily identified as WUS in the project area. All WUS in the project area consist of ephemeral drainages. Representative photographs of drainages in the project area are provided in Appendix B. The locations of each sample point and its ordinary high water width are shown on the aerial photographs located in the map pockets (Appendix C).

Table 1. Summary of Potential Waters of the U.S. Identified within the Golden Valley Project Area

Drainage or Area ID	Area (m ²)	Area (ac)
A	21972.00	5.43
B	16040.79	3.96
B1	698.54	0.17
C	4696.63	1.16

Table 1. Summary of Potential Waters of the U.S. Identified within the Golden Valley Project Area, continued

D	63366.36	15.66
D1	13416.17	3.32
D2	2328.73	0.58
D3	72.80	0.02
D4	367.35	0.09
D5	394.74	0.10
D6	250.22	0.06
D7	7795.00	1.93
D8	5515.92	1.36
D9	253.87	0.06
E	5466.99	1.35
E1	5855.42	1.45
F	5090.79	1.26
F1	384.96	0.10
F2	178.47	0.04
G	6406.34	1.58
G1	80.85	0.02
G2	239.85	0.06
H	433.05	0.11
I	587.75	0.15
J	822.89	0.20
J1	149.41	0.04
K	286.36	0.07
L	77546.75	19.16
L1	954.89	0.24
L2	1869.71	0.46
L3	1938.07	0.48
L4	1911.88	0.47
L5	330.46	0.08
L6	1241.89	0.31
L7	4363.66	1.08
L8	1559.14	0.39
M	14025.28	3.47
M1	1032.44	0.26
M2	292.27	0.07
M3	567.70	0.14
M4	412.58	0.10
N	225.46	0.06
O	4398.20	1.09
O1	1644.25	0.41
P	8437.90	2.09
Q	976.98	0.24
Q1	254.24	0.06
R	491.02	0.12
S	148.21	0.04
T	633.46	0.16
U	4180.84	1.03
U1	933.49	0.23
U2	284.35	0.07
V	2184.31	0.54
V1	233.85	0.06
Totals	296225.53	73.20

4.0 REFERENCES

Engineer Research and Development Center. 2004. Review of ordinary high water mark indicators for delineating arid streams in the southwestern United States. Edited by Robert W. Lichvar and James S. Wakeley. Prepared for Office of the Chief of Engineers and Environmental Protection Agency. January.

U.S. Army Corps of Engineers (USACE). 2001. Final summary report: guidelines for jurisdictional determinations for waters of the United States in the arid Southwest. South Pacific Division, USACE. June.

APPENDIX A

LANDOWNER AUTHORIZATION

RHODES HOMES ARIZONA, LLC

June 17, 2005

Mr. Eric Koster
SWCA Environmental Consultants
2820 West Charleston Blvd, Suite 15
Las Vegas, Nevada 89102

RE: Golden Valley and White Hills

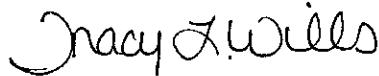
Dear Mr. Koster:

Enclosed please find the original documents for filing with the U.S. Army Corps of Engineers for the jurisdictional water delineation/Section 404 applications for Golden Valley and White Hills:

1. Statement of Authorization for Golden Valley South project (APN 306-63-014);
2. Copy of Deeds transferring the Golden Valley parcel into the name of South Dakota Conservancy, LLC;
3. Statement of Authorization for White Hills projects (APNs 317-49-062, 317-36-032, and 317-56-003); and
4. Copy of Deeds transferring the three White Hills parcels into the name of Sedora Holdings, LLC.

The Statements of Authorization have been signed by Kirk Brynjulson as a representative of Rhodes Homes Arizona on behalf of the owning companies. Should you have any questions, please do not hesitate to contact our office.

Sincerely,



Tracy L. Wills
Paralegal

/tlw
Enclosures

June 17, 2005

U.S. Army Corps of Engineers
Regulatory Section
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1936

Statement of Authorization

As the landowner SOUTH DAKOTA CONSERVANCY, LLC, I, Kirk Brynjulson, hereby designate and authorize SWCA Environmental Consultants (SWCA) to act on our behalf as the agent for the jurisdictional water delineation application and/or the agent for the Section 404 application under Section 404 of the Clean Water Act and to furnish, upon request, supplemental information in support of this delineation/application. Correspondence related to the project should be directed to SWCA.

I authorize SWCA and the U.S. Army Corps of Engineers to access the project area GOLDEN VALLEY SOUTH, Parcel 1A of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona, known as tax map 306-63-014, for purposes of conducting any necessary fieldwork that is required to complete this permit application. If there are any questions concerning this authorization, please contact me (Kirk Brynjulson) at either 928-718-2210 (office) or 702-325-9578 (cell).

KIRK BRYNJULSON
Applicant Name (printed)

Date

Applicant Signature

Title

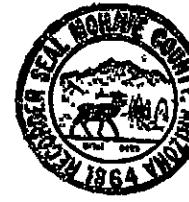
Applicant Company Name (if applicable)
SOUTH DAKOTA CONSERVANCY, LLC

INDEXED MICROFILED

Recording Requested by:
First American Title Insurance Agency of Mohave, Inc.

When recorded mail to:
SOUTH DAKOTA CONSERVANCY LLC
attn: Matt Lawson, 4730 S. Ft. Apache Rd.
Las Vegas, NV 89147

EXEMPT ARS 11 1134.88



2005005027 BK 5394 PG 32
OFFICIAL RECORDS OF MOHAVE COUNTY
JOAN MC CALL, MOHAVE COUNTY RECORDS
01/14/2005 04:30P PAGE 1 OF 2
FIRST AMERICAN TITLE INS CO
RECORDING FEE 14.00

WARRANTY DEED

File No. 292-4385733 (pib)

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, I or we,

Aztec 80, An Arizona limited partnership, the GRANTOR does hereby convey to

First American Title Insurance Agency of Mohave, Inc., an Arizona Corporation, as Trustee under Trust No. 9026 and not personally, the GRANTEE

the following described property situate in **Mohave County, Arizona**:

Parcels 1A, 2A, 3A, 4A, and 5A shown on Parcel Plat recorded April 9, 1996, in Book 11 of Parcel Plats, Page 60, being a division of the Northeast quarter of the Southeast quarter (NE1/4 SE1/4) of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona.

Except all oil and gas, as reserved in the Patent to said land recorded in Book 1130 of Official Records, Page 726.

Pursuant to ARS 33-404, Beneficiaries names and addresses under said trust(s) are disclosed in Book 4526 Page 288.

Subject To: Existing taxes, assessments, liens, encumbrances, covenants, conditions, restrictions, rights of way and easements of record.

And the GRANTOR binds itself and its successors to warrant the title as against its acts and none other, subject to the matters set forth.

DATED: December 14, 2004

Aztec 80

[Handwritten signature]
Authorized Signor

200 - 62 - 114

A.P.N.: 306-63-015

Warranty Deed - continued

File No.: 292-4385733 (pib)

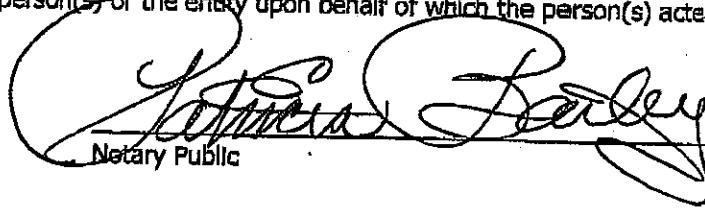
PAGE 2 OF 2
BK 5394 PG 328 FEE#2005005027

STATE OF ARIZONA,
County of Maricopa ss.

On January 13 2005, before me, the undersigned Notary Public, personally appeared John Rader, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

My Commission Expires:


Patricia Bailey
Notary Public



Recording Requested by:
First American Title Insurance Agency of Mohave, Inc.

When recorded mail to:
SOUTH DAKOTA CONSERVANCY LLC
attn: Matt Lawson, 4730 Ft. Apache Rd. Ste 300
Las Vegas, NV 89147



INDEXED MIKEWHEED

2005005022 BK 53P4 PG 32
OFFICIAL RECORDS OF MOHAVE COUNTY
JOSH MC CALL, MOHAVE COUNTY RECORDER
01/14/2005 04:31P PAGE 1 OF 2
FIRST AMERICAN TITLE INS CO
RECORDING FEE 16.00

SPECIAL WARRANTY DEED

(Trust)

File No. 292-4385733 (pib)

Trust No. 9026

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, **First American Title Insurance Agency of Mohave, Inc.**, an **Arizona Corporation**, as **TRUSTEE**, under Trust No. **9026**, and not personally the **GRANTOR** herein, does hereby convey to

SOUTH DAKOTA CONSERVANCY LLC, a Nevada Limited Liability Company, the **GRANTEE**,

the following described property situate in **Mohave County, Arizona**:

Parcels 1A, 2A, 3A, 4A, and 5A shown on Parcel Plat recorded April 9, 1996, in Book 11 of Parcel Plats, Page 60, being a division of the Northeast quarter of the Southeast quarter (NE1/4 SE1/4) of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona.

Except all oil and gas, as reserved in the Patent to said land recorded in Book 1130 of Official Records, Page 726.

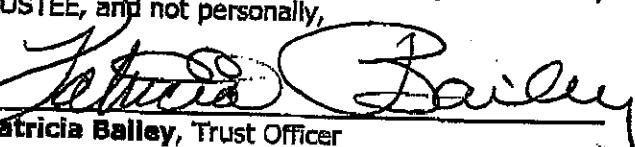
The disclosure of trust beneficiaries is recorded in **Book 4526 Page 288**.

Subject To: Existing taxes, assessments, covenants, conditions, restrictions, rights of way and easements of record.

And the **GRANTOR** binds itself and its successors to warrant the title as against its acts and none other, subject to the matters set forth.

DATED: December 14, 2004

First American Title Insurance Agency of Mohave, Inc.,
as **TRUSTEE**, and not personally,

By: 
Patricia Bailey, Trust Officer

AZtec 80

306-43-014
306-63-015
306-63-016
306-63-017
306-63-018

A.P.N.: 306-63-015

Warranty Deed - continued

File No.: 292-4385733 (pib)

STATE OF AZ

)

County of Mohave

)
ss.
)

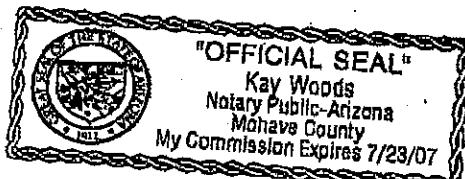
PAGE 2 OF 2
BK 5394 PG 330 FEE#2005005028

On 1-14-2005, before me, the undersigned Notary Public, personally appeared Patricia Bailey, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

My Commission Expires:

Kay Woods
Notary Public



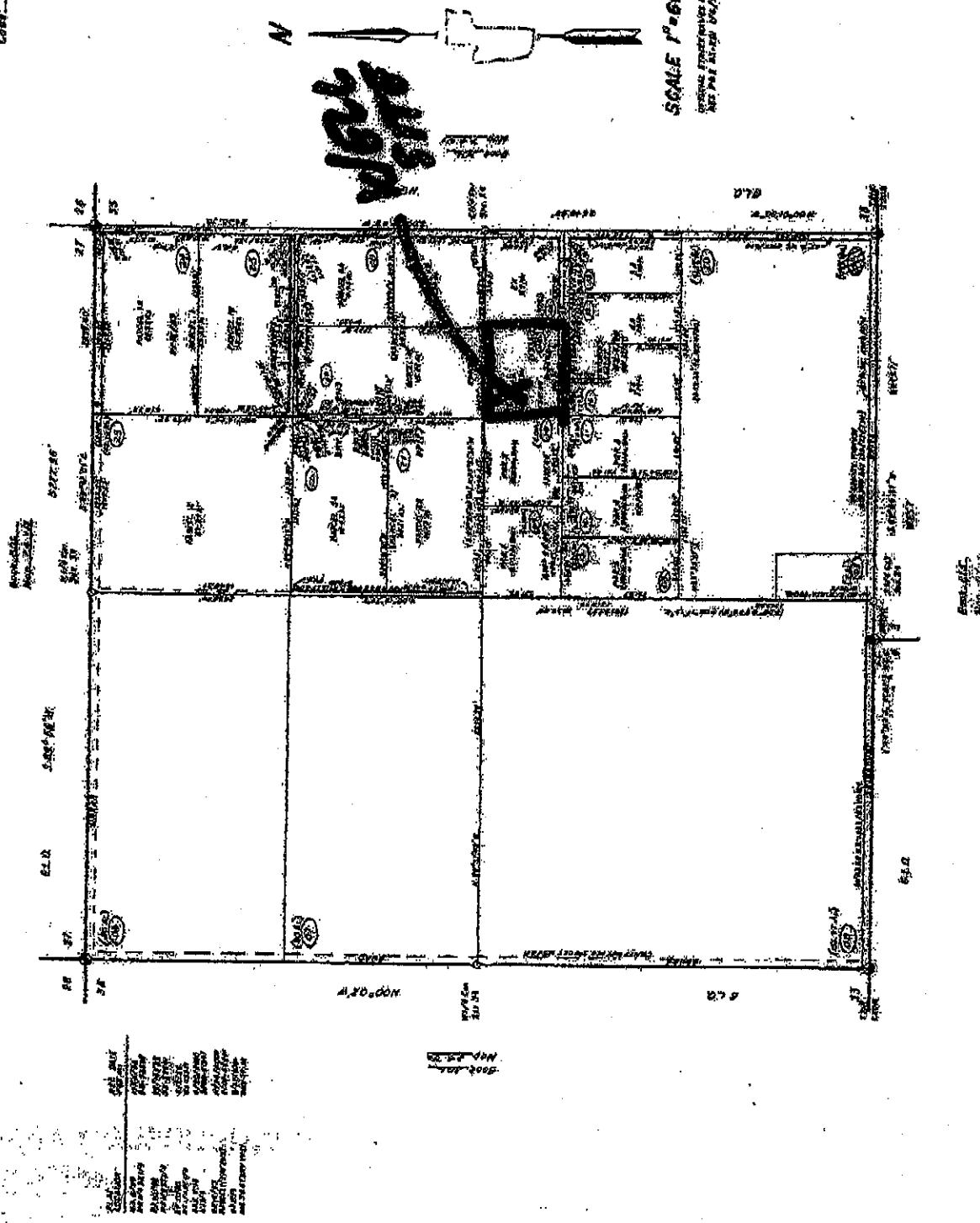
BOOK 306
MAP 63
Cost: 650

MONROE COUNTY
ASSESSOR'S MAP

SCALE 1" = 600'

21st, 1894, 34

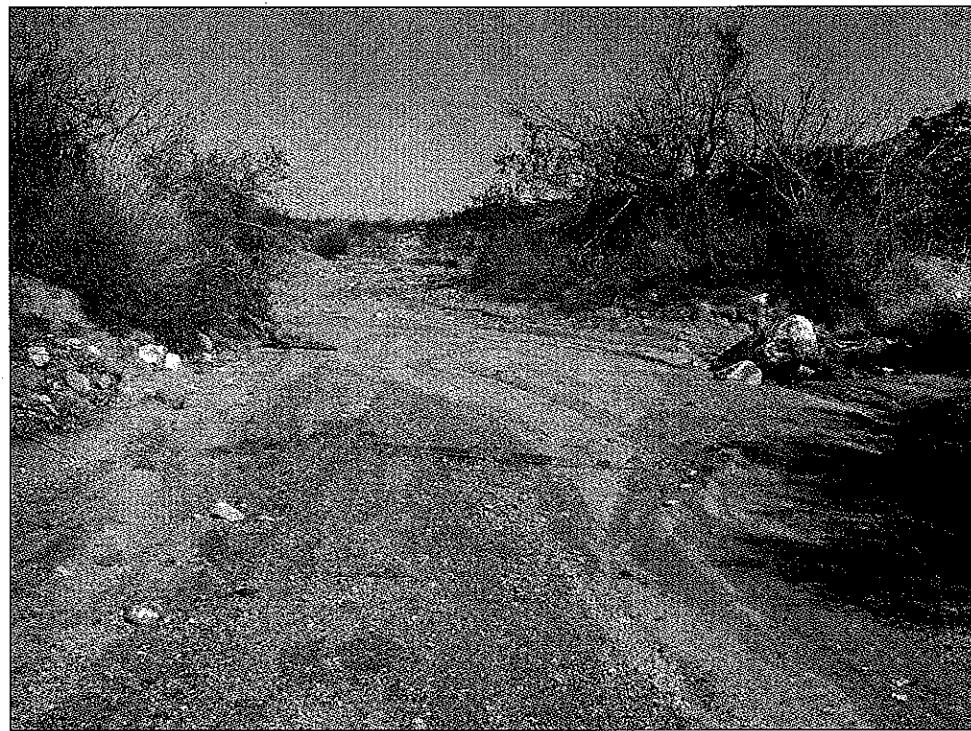
SEC. 34, T. 21 N., R. 10 W.



APPENDIX B

SELECTED PHOTOGRAPHS OF PROJECT DRAINAGES

Golden Valley



Aerial 1, Photo 43. Wash D2. Wash measures approximately 12 feet wide at this location.



Aerial 1, Photo 1-52. Wash D. Wash measures approximately 28 feet wide at this location.

Golden Valley



Aerial 1, Photo 1-48. Due to the lack of consistent channel characteristics and small channel size, SWCA determined this area as not potentially jurisdictional.

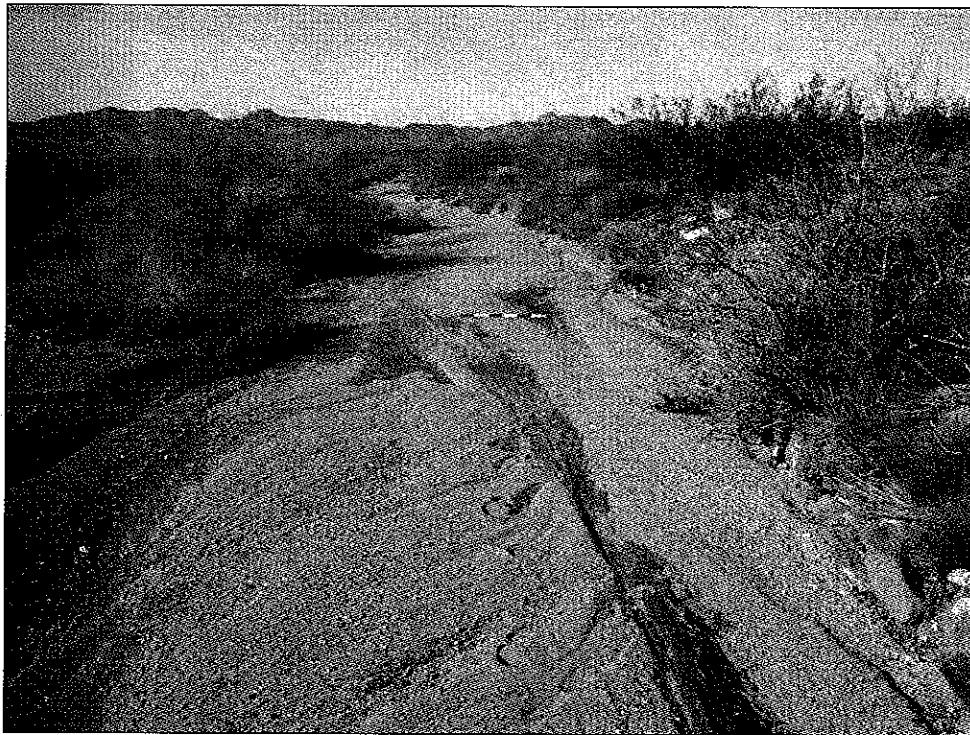


Aerial 2, Photo 1-98. Due to the lack of consistent channel characteristics and small channel size, SWCA determined this area as not potentially jurisdictional.

Golden Valley

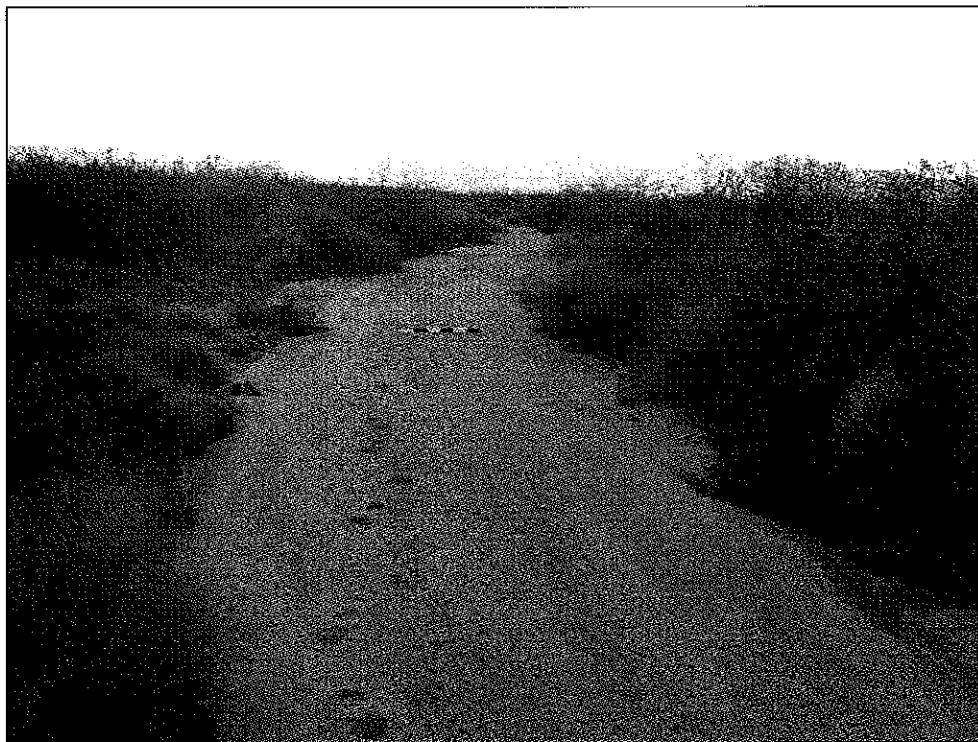


Aerial 2, Photo 1-123. Wash L7. This wash measures 3 feet wide at this location.

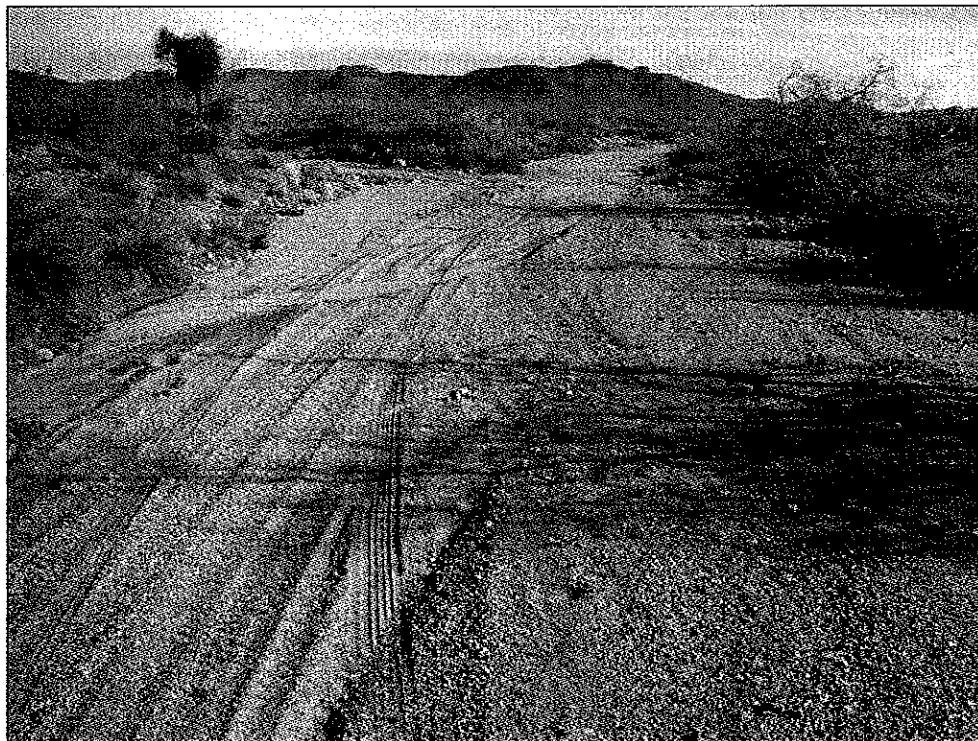


Aerial 3, Photo 1-117. Wash P. Wash measures 13 feet wide at this location.

Golden Valley



Aerial 3, Photos 1-17. Wash M. Wash measures approximately 10 feet at this location.



Aerial 3, Photo 1-112. Wash L. Wash measures 31 feet wide at this location.

Golden Valley

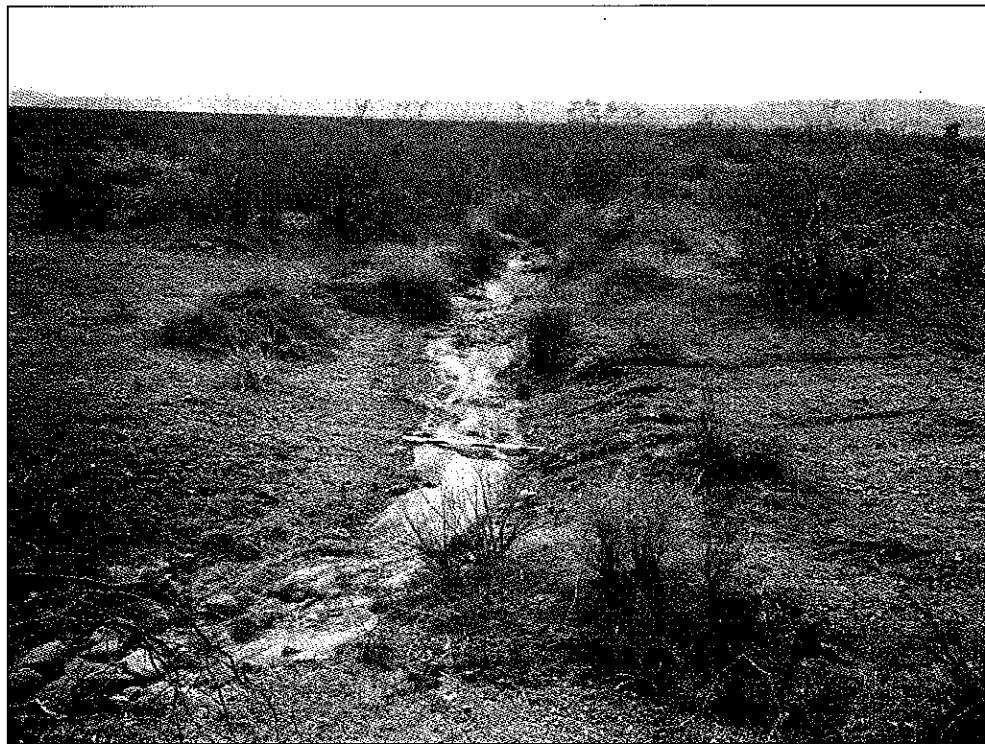


Aerial 3, Photo 1-22. Wash L7. Wash measures approximately 8 feet wide at this location.



Aerial 4, Photo 1-28. Wash O1. Wash measures 4 feet wide at this location.

Golden Valley

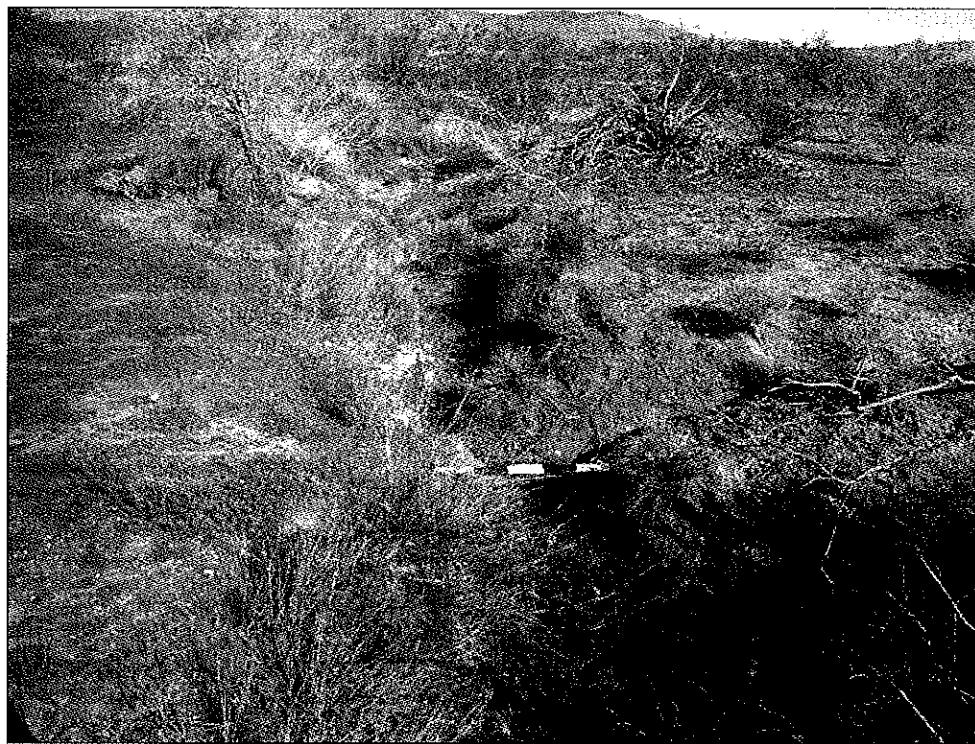


Aerial 4, Photo 1-132. Wash U. Wash measures 2.5 feet wide at this location.



Aerial 5, Photo 1-86. Wash G. Wash measures 7 feet wide at this location.

Golden Valley

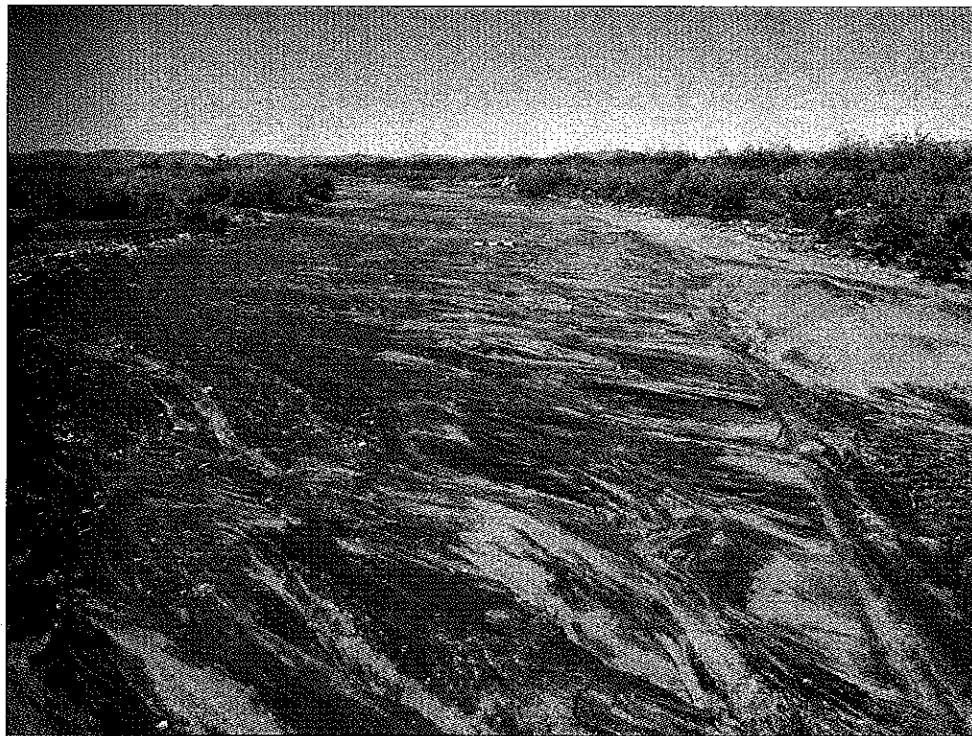


Aerial 5, Photo 1-84. Due to the lack of consistent channel characteristics, SWCA determined this area as not potentially jurisdictional.



Aerial 6, Photo 1-56. Wash B. Wash measures 12 feet wide at this location.

Golden Valley



Aerial 6, Photo 1-76. Wash A. Wash measures 40 feet wide at this location.



Aerial 6, Photo 1-92. Wash F. Wash measures approximately 7.5 feet wide at this location.

Golden Valley

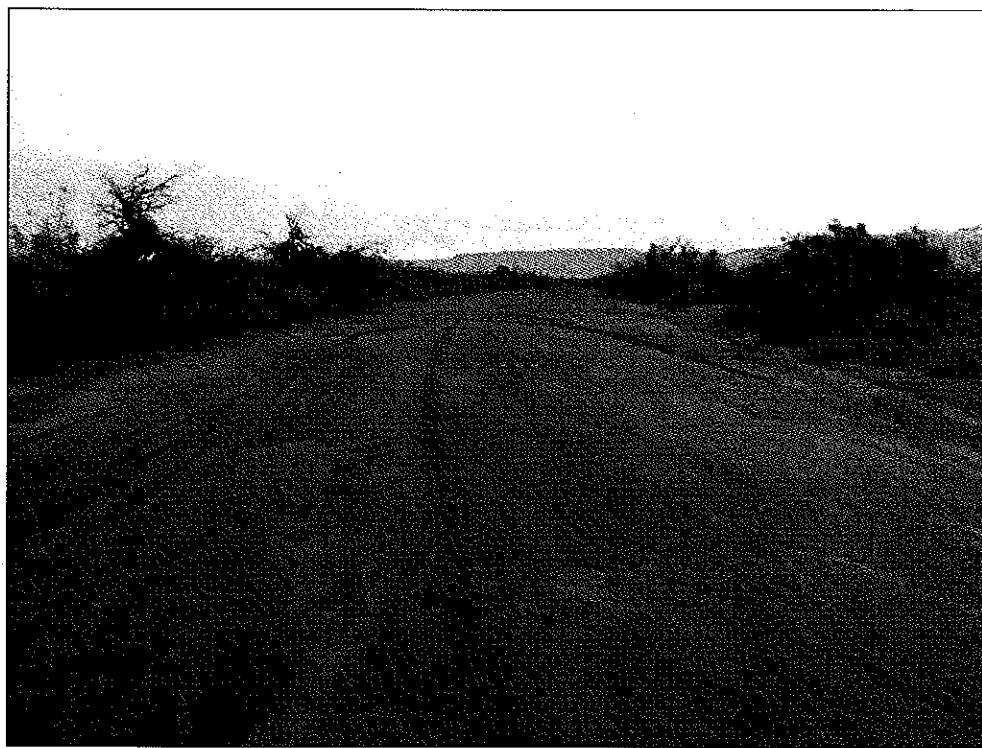


Aerial 6, Photo 1-62. Wash E1. Wash measures 6.5 feet wide at this location.



Aerial 7, Photo 1-40. Wash D1. Wash measures 17 feet wide at this location.

Golden Valley



Aerial 7, Photo 1-42. Wash D. Wash measures 48 feet wide at this location.



Aerial 8, Photo 1-97. Wash F1. Wash measures 3 feet wide at this location.